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10/597,758	08/07/2006	Dean James Patterson	INMT0102PUSA	5848

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EXAMINER

SULLIVAN, DEBRA M

ART UNIT	PAPER NUMBER
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3725

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12/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,758	Applicant(s) PATTERSON ET AL.	
	Examiner Debra M. Sullivan	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 36 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-34 is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/26/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 35 and 36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 16, 2008.

Applicant's election with traverse of Group I and II in the reply filed on September 16, 2008 is acknowledged. The traversal is on the ground(s) that the punch and winding machine and the method of forming a slot wound core are related to a single invention. Upon further review of Applicant's arguments with respect to the restriction of groups I and II the Examiner is withdrawing the restriction between Group I and Group II. Therefore, claims 26-34 are rejoined with claims 1-25 of Group I. Claims 1-34 will be examined.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second roll means includes a pair of free running rollers, cutting means, welding arrangement and/or adhesive applying arrangement and core ejection means must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: spring biased push road 16d.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate both punch & die arrangement and spring.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-9 and 23-25 rejected under 35 U.S.C. 102(b) as being anticipated by Munsterman et al (US Patent # 4,403,489). Munsterman et al discloses a punch and wind machine for producing a slotted wound core, the machine including a punch arrangement (34) arranged to punch apertures (12a) in a length of material, a mandrel (42) for receiving the punched material (22), a control means (36, 60, 62, 64) and a mandrel indexing means (38, 40, 44, 46), wherein the positioning of the punch arrangement (34) and the mandrel (42) is fixed and the mandrel (42) is arranged to be rotated by the mandrel indexing means (38, 40, 44, 46) after each operation of the punch arrangement (34) so that a roll (10) of punched material is formed on the mandrel (42), the mandrel (42) being rotated by an amount determined by the control means (36, 60, 62, 64) and the control means (36, 60, 62, 64) determining the indexed amount so that the selected apertures punched in the length of the material align with one another when the material (22) is rolled onto the mandrel (42) whereby the aligned apertures form respective slots of a desired configuration in the core (10) [See col. 4 lines 15-24; FIG 3].

In reference to claim 2, the desired configuration of the slot is straight sided and radially extending as seen in figure 3.

In reference to claim 3, the mandrel indexing means (38, 40, 44, 46) rotates the mandrel (42) by varying amounts [See col. 4 lines 21-24].

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In reference to claim 4, the slots (12a) produced in the core (10) are radial to the roll of material and have side walls which are substantially straight, as seen in figures 1 and 2.

In reference to claim 5, Munsterman et al further discloses roll measuring means (58) for measuring a dimension of the roll of punched material on the mandrel (42) [See col. 4 lines 43-55].

In reference to claim 6, the measured dimension is provided as an input to the control means (36, 60, 62, 64).

In reference to claim 7, the measured dimension of roll of the punched material is the radius of the roll of punched material on the mandrel (42).

In reference to claim 8, the roll measuring means includes a linear differential transformer (LVDT).

In reference to claim 9, the control means (36, 60, 62, 64) is arranged to determine an index amount using an algorithm and the measured dimension of the roll of punched material on the mandrel (42).

In reference to claim 23, the control means (36, 60, 62, 64) includes a digital computing element arranged to read the value of the radius of the roll of punched material on the mandrel (42).

In reference to claim 24, the digital computing element is further arranged to calculate the change in the mandrel angle that must be made in order to punch apertures in the material so as to ensure that selected apertures in the length of material align with one another when rolled onto the mandrel (42) so as to thereby forming respective slots (12a) in the core (10) [See col. 4 lines 33-55].

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In reference to claim 25, the control means (36, 60, 62, 64) is arranged to determine the radius of the roll of material on the mandrel (42), initiate the mandrel indexing means (38, 40, 44, 46) to rotate the mandrel (42) by a calculated index angle so as to draw more material around the roll of material formed on the mandrel, actuate the punch arrangement so as to cause an aperture to be punched in the length of material and then repeat this process until the desired radius of material is located on the mandrel (42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al in view of Fritzsche (US Patent # 4,909,057). In reference to claims 10 and 11, Munsterman et al discloses the invention substantially as claimed except for wherein the machine includes a first roll means. However, Fritzsche teaches of a punch and winding machine having a first roll means comprising of feed rollers (41) in order to intermittently feed a strip to the punch arrangement accurately and provide a tension on the strip during the punching operation [See col. 9 lines 38-56]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to include a first roll means, as taught by Fritzsche, in order to accurately feed the strip to the punch arrangement intermittently.

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In reference to claim 12, Fritzsche further teaches of the first roll means is driven by a servo control.

2. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al and Fritzsche as applied to claim 10 above, and further in view of Chubbuck (US Patent # 2,356,972). Munsterman et al in view of Fritzsche discloses the invention substantially as claimed except for wherein the machine further includes a second roll means. However, Chubbuck teaches of a punch and winding machine having a second roll means (41) in order to guide the strip onto the mandrel (36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to include a second roll means, as taught by Chubbuck in order to provide a guide means for guiding the punched strip onto the mandrel accurately.

In reference to claim 14, Chubbuck further teaches that the second roll means (41) serves to maintain the un-punched material perpendicular to the punch arrangement, as seen in figure 2.

In reference to claim 15, Chubbuck teaches of providing a single free running roller as the second roll means, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pair of rollers in order to ensure a more accurate guiding means of the strip onto the mandrel.

In reference to claim 16, Chubbuck further teaches of the second roll means includes a single running roller (41) and wherein the angle present by the material as it leaves the roller never crosses the horizontal plane when winding a complete roll, as seen in figure 2.

In reference to claim 17, Munsterman et al in view of Fritzsche discloses the invention substantially as claimed except for wherein the mandrel includes a fixing means. However,

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Chubbuck teaches of a punch and winding machine having a mandrel (36) that includes a fixing means (37) in order to attach a leading end (37) of the strip (35) to the mandrel [See FIG 2, col. 4 lines 19-22]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the mandrel of Munsterman et al to include a fixing means, as taught by Chubbuck, in order to ensure attachment of the leading end of the strip to the mandrel during the winding operation.

In reference to claim 18, Chubbuck further teaches of the fixing means including a radial slot cut into the mandrel (36) which is arranged to receive the leading end (37) of the material (35), as seen in figure 2.

3. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al, Fritzsche and Chubbuck as applied to claim 18 above, and further in view of Hart (US Patent # 3,283,399). The combination of Munsterman et al, Fritzsche and Chubbuck discloses the invention substantially as claimed except for wherein the machine further includes a cutting means. However, Hart teaches of punch and winding machine having a cutting means (13) in order to sever the material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to include a cutting means, as taught by Hart, in order to sever the strip of material.

In reference to claim 20, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a cutting means into the punch arrangement in order to sever the strip prior to winding the strip onto the mandrel.

4. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munsterman et al in view of Hart (US Patent # 3,283,399). Munsterman et al discloses the

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invention substantially as claimed except for wherein the machine further includes a welding arrangement and a core ejection means. However, Hart teaches of a punch and winding machine having a welding arrangement (16) in order to attach the end of the strip to the wound core (18) [See col. 5 lines 1-5; FIG 1] and a core ejection means to remove the core from the apparatus [See col. 12 lines 14-17]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine of Munsterman et al to include a welding arrangement and a core ejection means, as taught by Hart, in order to attach a cut end to the wound core and remove the core from the apparatus.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter.

It is the opinion of the examiner that the art of record (considered as a whole) neither anticipates nor renders obvious the calculating and determining steps of the material and mandrel in combination with the rest of the claimed limitations set forth in claim 26. Claims 26-34 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Sullivan whose telephone number is (571) 272-1904. The examiner can normally be reached Monday - Thursday 10am - 8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached at (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Debra M Sullivan/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art Unit 3725